



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/540,624 Confirmation No. 7137
Applicant : Masato HONMA et al.
Filed : June 24, 2005
TC/A.U. : 1794
Examiner : Gerard T. Higgins
Dkt. No. : IPE-057
Cust. No. : 20374

SECOND DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Masato HONMA, declare and state:

1. THAT I am one of the inventors of the layered product and integrated molded object described and claimed in the above-identified application (hereinafter: "the application").

2. THAT I am now employed and have been employed for many years by Toray Industries, Inc., of Tokyo, Japan and since January, 2001, have been involved with the technology relating to composite materials comprised of carbon fiber reinforced resins.

3. THAT I am aware that independent claims 1 and 39 of the application have been rejected as being anticipated by Obara (JP 07-047152) as evidenced by pictures T4 and T5 included in my previous declaration executed September 24, 2010, and filed in the present application on October 22, 2010.

4. THAT the molding shown in T4 and T5 has a clear interface between the fiber reinforced thermosetting resin 4 and the fiber reinforced thermoplastic resin 5 as recognized by Obara and described in paragraph [0026] of the English translation of JP 07-047152, i.e.: "[t]he fiber reinforced thermosetting resin and the fiber reinforced thermoplastic resin showed a clear interface between them and a domain in which the thermosetting resin and the thermoplastic resin are intermingled each other did not exist".

5. THAT the clear interface shown in T4 is absolutely different from a continuous rugged interface between the thermosetting resin layer and the thermoplastic resin layer defined in claims 1 and 39 of the present application because the clear interface shown in T4 does not include structural limitations of the rugged interface defined in claims 1 and 39. Namely, the clear interface shown in T4 does not include the feature required in claim 1 that the continuous rugged interface has a structure such that some of the reinforcing

continuous filaments parallel to the first and second opposed surfaces of the layered product extend through the continuous rugged interface and exist in the resin of the thermoplastic resin layer and also exist in the resin of the thermosetting resin layer, and does not include the feature required in claim 39 that the continuous rugged interface has a structure such that a portion of the filaments are included in both of the thermosetting resin layer and the thermoplastic resin layer through the continuous rugged interface.

6. THAT, I have prepared and am attaching hereto Figure T6, in addition to Figures T4 and T5 presented in my earlier declaration filed October 22, 2010. Figure T6 was prepared by adjusting the contrast between the thermosetting resin 6 and the thermoplastic resin 7 in Figure T4. In Figure T6, the thermoplastic resin 7 in the fiber reinforced thermoplastic resin 5 is observed in black and the thermosetting resin 6 in the fiber reinforced thermosetting resin 4 is observed in light black (gray).

7. THAT, as shown in Figure T6, the black resin 7, i.e., the thermoplastic resin layer, is not intermingled with the gray resin 6, i.e., the thermosetting resin layer in a rugged manner to form a rugged interface as defined in claims 1 and 39. There are no reinforcing continuous filaments parallel to the first and second opposed surfaces

U.S PATENT APPLN S.N. 10/540,624
DECLARATION UNDER 37 C.F.R. § 1.132

of the layered product that extend through a continuous rugged interface and that exist, or are included, in both the resin 7 of the thermoplastic resin layer and in the resin 6 of the thermosetting resin layer as required by claims 1 and 39. Therefore, the layered product of Comparative Example 2 of Obara is not a layered product as defined, respectively, in claims 1 and 39.

That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that further these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent resulting therefrom.

Date: June, 9, 2011.

Signed: Masato Honma

Name: Masato HONMA

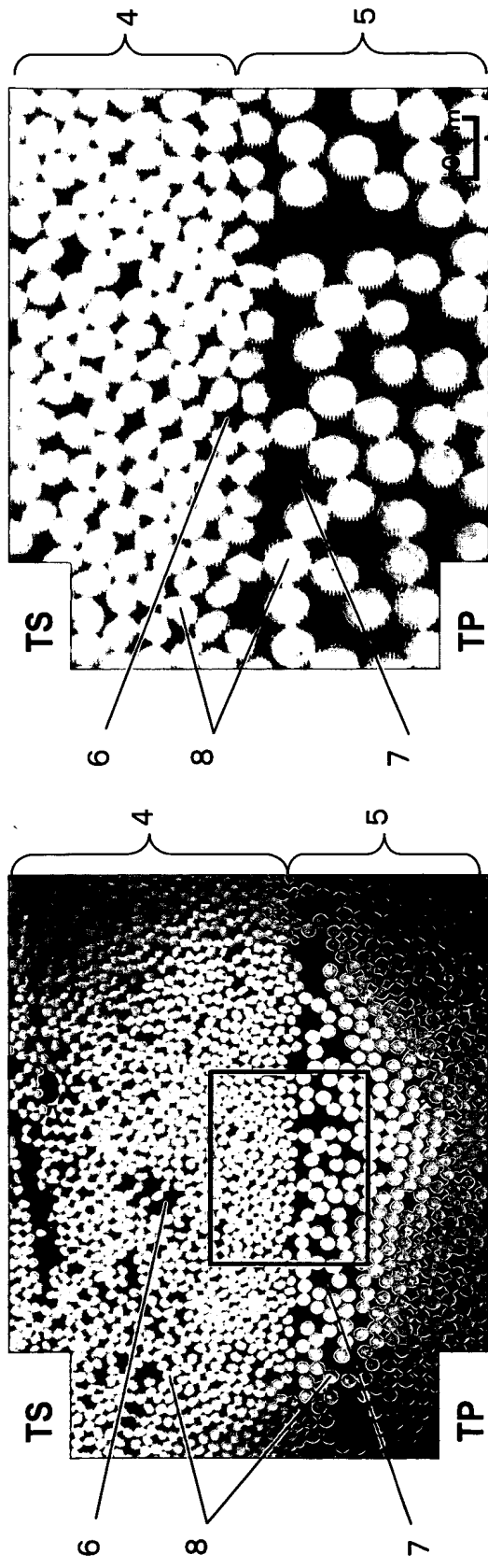


Figure T5

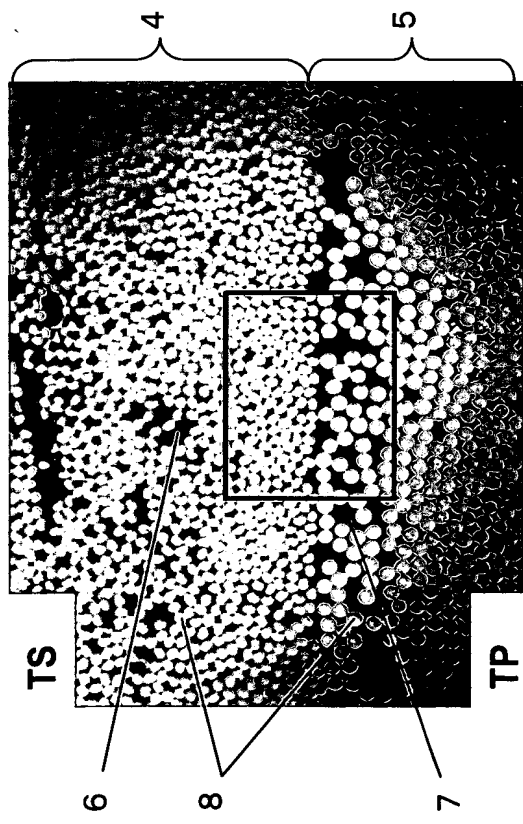


Figure T4

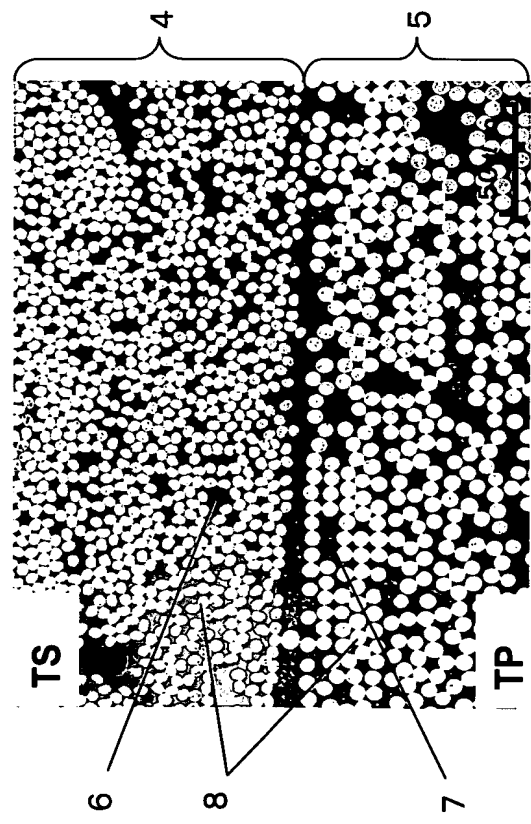


Figure T6